

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 17)

FOIL the expressions shown below:

1. $(7x - 2)(-9x - 8)$

$$\begin{aligned} & (7)(-9)x^2 + (7)(-8)x + (-2)(-9)x + (-2)(-8) \\ & \quad (-63)x^2 + (-56)x + (18)x + (16) \\ & \quad -63x^2 - 38x + 16 \end{aligned}$$

2. $(3x - 4)(-3x + 6)$

$$\begin{aligned} & (3)(-3)x^2 + (3)(6)x + (-4)(-3)x + (-4)(6) \\ & \quad (-9)x^2 + (18)x + (12)x + (-24) \\ & \quad -9x^2 + 30x - 24 \end{aligned}$$

3. $(7x - 4)(-2x + 3)$

$$\begin{aligned} & (7)(-2)x^2 + (7)(3)x + (-4)(-2)x + (-4)(3) \\ & \quad (-14)x^2 + (21)x + (8)x + (-12) \\ & \quad -14x^2 + 29x - 12 \end{aligned}$$

4. $(-8x - 5)(-6x + 2)$

$$\begin{aligned} & (-8)(-6)x^2 + (-8)(2)x + (-5)(-6)x + (-5)(2) \\ & \quad (48)x^2 + (-16)x + (30)x + (-10) \\ & \quad 48x^2 + 14x - 10 \end{aligned}$$

5. $(5x - 4)(6x - 2)$

$$\begin{aligned} & (5)(6)x^2 + (5)(-2)x + (-4)(6)x + (-4)(-2) \\ & \quad (30)x^2 + (-10)x + (-24)x + (8) \\ & \quad 30x^2 - 34x + 8 \end{aligned}$$

FOIL the expressions shown below:

6. $(-6x + 9)(3x - 5)$

$$\begin{aligned} &(-6)(3)x^2 + (-6)(-5)x + (9)(3)x + (9)(-5) \\ &(-18)x^2 + (30)x + (27)x + (-45) \\ &-18x^2 + 57x - 45 \end{aligned}$$

7. $(-3x + 4)(-4x + 9)$

$$\begin{aligned} &(-3)(-4)x^2 + (-3)(9)x + (4)(-4)x + (4)(9) \\ &(12)x^2 + (-27)x + (-16)x + (36) \\ &12x^2 - 43x + 36 \end{aligned}$$

8. $(-5x - 2)(-5x - 3)$

$$\begin{aligned} &(-5)(-5)x^2 + (-5)(-3)x + (-2)(-5)x + (-2)(-3) \\ &(25)x^2 + (15)x + (10)x + (6) \\ &25x^2 + 25x + 6 \end{aligned}$$

9. $(7x + 4)(6x - 6)$

$$\begin{aligned} &(7)(6)x^2 + (7)(-6)x + (4)(6)x + (4)(-6) \\ &(42)x^2 + (-42)x + (24)x + (-24) \\ &42x^2 - 18x - 24 \end{aligned}$$

10. $(6x + 4)(9x - 2)$

$$\begin{aligned} &(6)(9)x^2 + (6)(-2)x + (4)(9)x + (4)(-2) \\ &(54)x^2 + (-12)x + (36)x + (-8) \\ &54x^2 + 24x - 8 \end{aligned}$$